

## ABSTRACT OF THE DISCLOSURE

A recessed portion 4 is formed on a main surface 3a of a semiconductor substrate 1 of a semiconductor device 10. A convex portion 5 with a partial spherical surface, functioning as solid immersion lens, is formed on a bottom surface of the recessed portion 4. An angle  $\theta_1$  formed between a side surface 4b of the recessed portion 4 and the main surface 3a of the semiconductor substrate 1 is larger than  $90^\circ$ . This makes it possible to reduce an amount of an analysis light 20 interrupted by the semiconductor substrate 1 when analysis light 20 is used in reverse surface analysis of the semiconductor device 10. Accordingly, the distance between the surface of the convex portion 5 and the side surface 4b of the recessed portion 4 can be reduced, and the time required for machining the semiconductor substrate can be reduced.